

Unit Code: H640/02

Qual Name A level Mathematics B (MEI)

Qual Title: MEI Pure Mathematics and Statistics

Question Set	Q. No	Total Marks	AO	Spec Ref.	Topic	Accompanying material Source, if required
1	1	2	1	Mt Trigonometry	Area of triangle	
1	2	3	1	Mt Trigonometry	Arc length and area of sector	
1	3	4	1	Mc Calculus	Trig functions, applications of differentiation	
1	4	3	1	Ms Sequences and series	nth terms and sums of series	
1	5	4	1	Ms Sequences and series	Binomial expansion, ,rational powers, validity	
1	6	9	3(PS)	Mc Calculus	Small angle approximations, interpretation of spreadsheet output	
1	7	8	3(PS)	Mt Trigonometry, Mc Calculus	Compound angle formulae, area between two curves	
1	8	7	1	Mf Functions, Mc Calculus	Composite functions, Chain rule	
2	1	2	2	MD Data presentation	Cumulativ frequency curve	
2	2	5	1	Mu Probability	Conditional probability	
2	3	12	3(M)	MD Data presentation, Mp Sampling, MR Probability distribution	Data presentation, sampling techniques, Normal distribution	
2	4	9	2	MH Hypothesis testing	Normal distribution	
2	5	10	3(M)	MD Data presentation	Working with time series	Large Data Set 2
2	6	15	1	Mu Probability, MH Hypothesis testing,	Binomial distribution	
2	7	7	2	MD Data presentation, MH Hypothesis testing	Identifying outliers, testing for correlation/association	Large Data Set 2
3	1	4	1	Mc Calculus	Chain rule, reverse Chain rule	
3	2	4	1	Mc Calculus	Trapezium rule	
3	3	4	1	Mc Calculus	Integration by parts	

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3	4	5	1	Mt Trigonometry	Arc length and area of sector	
3	5	9	1	Mf Functions	Composite functions, inverse functions	
3	6	8	2	Mc Calculus, Me Numerical methods	Product rule, iterative methods	
3	7	7	3(M)	Ms Sequences and series	Application of standard formulae	
4	1	4	1	MR Probability distribution	Working with probabilities	
4	2	3	2	MD Data presentation	Working with the mean	
4	3	3	1	MD Data presentation	Mid-range, mode, describing a distribution	
4	4	9	3(PS)	Mu Probability	Independent events	
4	5	16	3(M)	MH Hypothesis testing	Working with the Normal distribution	
4	6	10	3(M)	MH Hypothesis testing	Working with the binomial distribution	
4	7	8	2	MD Data presentation	Interpreting diagrams and data	Large Data Set 1
4	8	6	1	MR Probability distribution	Normal distribution, binomial distribution	
5	1	2	1	Ma Algebra	Surds	
5	2	3	1	Mf Functions	Inequalities involving a modulus	
5	3	3	1	Ma Algebra	Graphs	
5	4	5	1	Mt Trigonometry	Rcos(x +/- α) forms	
5	5	4	1	Mc Calculus	Negative and rational powers of x	
5	6	9	1	Mc Calculus	Implicit differentiation	
5	7	11	3(M)	Mf Functions	Quadratic and exponential models	
5	8	12	1	Mc Calculus	Partial fractions, logarithmic forms in integration	
6	1	2	2	Mu Probability	Independent events	
6	2	2	1	MD Data presentation	Use of calculator	

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6	3	4	3(PS)	MR Probability distribution	Binomial distribution	
6	4	5	1	MD Data presentation	Interpreting diagrams, outliers	
6	5	8	1	MR Probability distribution	Calculating probabilities, linear transformation of a Normal variable	
6	6	6	3(PS)	Mu Probability	Combined events	
6	7	5	3(PS)	Mu Probability	Use of Venn diagrams, conditional probability	
6	8	10	3(M)	MH Hypothesis testing	Normal distribution	
6	9	9	2	MD Data presentation, MH Hypothesis testing	Cumulative frequency diagrams, scatter diagrams, measures of correlation/association	Large Data Set 1